HISTORIC PROPERTY INVENTORY FORM

State of Washington, Department of Community Developme
Office of Archaeology and Historic Preservation
111 21st Avenue Southwest, Post Office Box 48343
Olympia, Washington 98504-8343 (206)753-4011

INDENTIFICATION SECTION

Field Site No. 184-N **OAHP No.** **Date Recorded** 13-Feb-95
Site Name Historic Plant Service Power House
Common
Field Recorder Philip M. Bogen, Evaluator: Darby Stapp
Owner's Name U.S. Department of Energy, Richland Operations Office
Address P.O. Box 550
City/State/Zip Code Richland, WA 99352

Status
- [X] Survey/Inventory
- [ ] National Register
- [ ] State Register
- [ ] Determined Eligible
- [ ] Determined Not Eligible
- [ ] Other (HABS, HAER, NHL)
- [ ] Local Designation

Photography
Photography Neg. No. 94010643-27cn
(Roll No. & Frame No.)
View of West Corner
Date Jan. 1995

Classification [ ] District [ ] Site [X] Building [ ] Structure [ ] Object
Distric Status [X] NR [ ] SR [ ] LR [ ] INV
Contributing [X] **Non-Contributing** [ ]
District/Thematic Nomination Nar Hanford Site Manhattan Project and Cold War Era Historic District

LOCATION SECTION

Address 100-N Reactor Area, Building 184-N
City/Town/County/Zip Code Richland, WA/Benton County/99352
Twp. 14N **Range** 26E **Section** 28 **1/4 Section** NE **1/4 1/4 Sec** SW
Tax No./Parcel No. **Acreage**
Quadrangle or map name Coyote Rapids 7.5 min. series
UTM References Zone 11 **Easting** 303974 **Northing** 5172485
Plat/Block/Lot
Supplemental Map(s) 100-N Area Buildings

Description Section
Materials & Features/Structural Types

Building Type Industrial
Plan Rectangular
Structural System Steel Frame
No. of Stories 4

Roof Type
- [ ] Gable
- [ ] Hip
- [X] Flat
- [ ] Pyramidal
- [ ] Monitor
- [ ] Other (specify)
- [ ] Gambrel
- [ ] Shed

Cladding (exterior Wall Surfaces
- [ ] Log
- [ ] Horizontal Wood Siding
  - Rustic/Drop [ ]
  - Clapboard [ ]
- [ ] Wood Shingle
- [ ] Board and Batten
- [ ] Vertical Board
- [ ] Asbestos/Asphalt
- [ ] Brick
- [ ] Stone
- [ ] Stucco
- [ ] Terra Cotta
- [ ] Concrete/Concrete Block
- [ ] Vinyl/Aluminum Siding
- [X] Metal (specify) Corrugated
- [ ] Other (specify)

Roof Material
- [ ] Wood Shingle
- [ ] Wood Shake
- [ ] Composition
- [ ] Slate
- [ ] Tar/Built-up
- [ ] Tile
- [ ] Metal (specify
- [ ] Other (specify)
- [X] Not visible

Foundation
- [ ] Log
- [ ] Post & Pier
- [ ] Stone
- [ ] Brick
- [ ] Not visible
- Concrete
  - [ ] Block
  - [X] Poured
  - [ ] Other (specify)

Integrity (Include detailed description in **Description of Physical Appearance**)

	Intact	Slight	Moderate	Extensive
Changes to plan	X			
Changes to windows	X			
Changes to original cladding	X			
Changes to interior	X			
Other (specify)				

High Styles/Forms (Check one or more of the following)
- [ ] Greek Revival
- [ ] Gothic Revival
- [ ] Italianate
- [ ] Second Empire
- [ ] Romanesque Revival
- [ ] Stick Style
- [ ] Queen Anne
- [ ] Shingle Style
- [ ] Colonial Revival
- [ ] Beaux Arts/Neoclassical
- [ ] Chicago/Commercial Style
- [ ] American Foursquare
- [ ] Mission Revival
- [ ] Spanish Colonial Revival/Mediterranean
- [ ] Tudor Revival
- [ ] Craftsman/Arts & Crafts
- [ ] Bungalow
- [ ] Prairie Style
- [ ] Art Deco/Art Moderne
- [ ] Rustic Style
- [ ] International Style
- [ ] Northwest Style
- [ ] Commercial Vernacular
- [ ] Residential Vernacular (see below)
- [X] Other (specify) Industrial Vernacular

Vernacular House Types
- [ ] Gable Front
- [ ] Gable Front and Wing
- [ ] Side Gable
- [ ] Cross Gable
- [ ] Pyramidal/Hipped
- [ ] Other (specif

NARRATIVE SECTION

Study Unit Themes (check one or more of the following)

[ ] Agriculture	[ ] Conservation	[ ] Politics/Government/Law
[ ] Architecture/Landscape Architecture	[ ] Education	[ ] Religion
[ ] Arts	[ ] Entertainment/Recreation	[ ] Science & Engineering
[ ] Commerce	[ ] Ethnic Heritage (specify)	[ ] Social Movements/Organizations
[ ] Communications	[ ] Health/Medicine	[ ] Transportation
[ ] Community Planning/Development	[ ] Manufacturing/Industry	[X] Other (specify) Manhattan Project & Cold War Era
	[ ] Military	[X] **Study Unit Sub-Theme(s) (specify)**
		Cold War/Nuclear Fuel Production
		Reactor Operations, Power Generation

Statement of Significance

Date of Construction 1964 Architect/Engineer/Builder General Electric/Burns and Roe

[X] In the opinion of the surveyor, this property appears to meet the criteria of the National Register of Historic Places.
[X] In the opinion of the surveyor, this property is located in a potential historic district (National and/or local).

AC power was supplied to the N Plant from two sources: offsite power originating from the Bonneville Power Administration via the Midway Substation (A Bus) and onsite power originating from the 184-N Plant Service Power House (B Bus). The 151-N Electrical Substation housed the A Bus transformer which converted the 230 kV from Midway to 13.8 kV for use at the N Plant. The A Bus supplied electrical power for start-up operations and supplied power when the reactor was shut down. Once the N Reactor was operating and producing steam, AC power was supplied via the onsite turbine generator located in the 184-N Building, which generated 13.8 kV for the B Bus.

The 184-N Building was the primary source for process steam and electrical power for routine and emergency operations at the 100-N Area. The building housed a 15,000-kV turbine generator which could be driven by either reactor-produced steam or by its own oil-fired 575,000 Btu/hr (7.96525 x E+08 Jules/hr) boiler. The building also housed air compressors and associated equipment.

This property is not associated with an important person (Criterion B), does not possess any distinctive architectural features or methods of construction (Criterion C), and does not qualify under Criterion D as the principal source of important information. However, the 184-N Building qualifies under Criterion A due to its association with the Cold War production of plutonium at N Reactor, and its contribution to Reactor Operations, specifically the Electrical System. Therefore, it is the conclusion of the U.S. Department of Energy that the 184-N Building is eligible under Criterion A for inclusion on the National Register of Historic Places as a contributing property within the Hanford Site Manhattan Project and Cold War Era Historic District.

Description of Physical Appearance

The 184-N Building is a rectangular, four-story, steel framed building with a poured concrete foundation, corrugated metal exterior wall surfaces, and a flat roof. It measures 112 ft by 96 ft by 70 ft (34.1 m by 29.3 m by 21.3 m); 11,328 ft^2 (1,052 m^2). The building is no longer in use and no significant changes have been made to it.

The N Reactor UTM coordinates are as follows: Northeast corner - 303974E, 5172485N; southeast corner - 303974E, 5171639N; southwest corner - 303069E, 5171639N; northwest corner - 303069E, 5172485N.

Major Bibliographic References

Bechtel Hanford, Inc. 1994. *"Pre-Existing" Conditions Survey of Hanford Site Facilities* to be Managed by Bechtel Hanford, Inc. BHI-00221, Rev. 00, Phase II. Rollie Warner, Engineer, Columbia Energy & Environmental Services, Inc.

Architectural Misc. Details, Drawing No. H-1-31057, 1964.